UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,607	12/19/2001	Kenneth W. Aull	NG(MS)7191	3015

26294   7590   12/03/2008
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVEVLAND, OH 44114

EXAMINER
KHOSHNOODI, NADIA

ART UNIT	PAPER NUMBER
2437	

MAIL DATE	DELIVERY MODE
12/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte KENNETH W. AULL, THOMAS C. KERR,
WILLIAM E. FREEMAN and MARK A. BELLMORE

_____

Appeal 2008-4276
Application 10/027,607
Technology Center 2400

_____

Decided: December 2, 2008

_____

Before ALLEN R. MACDONALD, ST. JOHN COURTENAY III and
DEBRA K. STEPHENS, *Administrative Patent Judges.*

STEPHENS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of

claims 1 and 3-20. Claim 2 has been cancelled. We have jurisdiction under

35 U.S.C. § 6(b).

STATEMENT OF CASE

The Invention

According to Appellants, the invention is a system and process for issuing tokens in a Public Key Infrastructure such that a unique and certified token ID number is issued to a certified user ID number (Spec. 1).   The method processes tokens or smart cards in a Public Key Infrastructure (PKI) and binds a certified token ID number to a certified user ID number in a database for an organization (Spec. 1, [0001]).

Each token (or smart card) is given a unique ID by the token manufacturer (Spec. 2, [0003] and Spec. 7, [0024]). To get a token, a user presents his or her credentials to the Tokenizing Officer or personal registration authority who reviews the user's credentials (Spec. 8, [0027] and [0028]). Tokenizing Officers are authorized members of the enterprise that act as an agent to issue tokens to users (Spec. 2, [0004]). The Tokenizing Officer enters the user's ID number, organization and token ID number into an E-form Request Web page, signs the Request and sends it to the Certificate Management System (CMS) or Certificate Authority (Spec. 7, [0024], Spec. 8, [0028] and Fig. 2, elements 230 and 240). The CMS checks for existing tokens for the user and revokes any certificates/public keys contained on the token (Spec. 8, [0028] and Figure 2, element 250). Normally, only one token is issued to a user (Spec. 8, [0028]).

Exemplary Claim(s)

Exemplary independent claim 1 under appeal reads as follows:

1. A token issuance and binding process comprising:

providing a plurality of tokens, each token having a unique ID number stored therein;

generating a unique public/private key pair for each token;

storing each token ID number and corresponding public key in a directory/database;

storing each private key in its respective token;

binding a unique ID number of a user to a corresponding one of the plurality of tokens by storing said correspondence there between in the directory/database; and

reviewing, by a Tokenizing Officer, credentials of the user and forwarding the user ID number and the token ID number to a CMS (Certificate Management System) along with an E-form (electronic form) request and signature of the Tokenizing Officer, wherein the Tokenizing Officer comprises a person.

Prior Art

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

| Carlsson | US 6,490,367 B1 | Dec. 3, 2002 |
| Burn | US 2003/0005291 A1 | Jan. 2, 2003 |

Rejections

The Examiner rejected claims 1 and 3-20 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Burn and Carlsson.

ISSUES

(1)   Appellants contend the subject matter of claims 1 and 11 would not have been obvious over the combination of Burn and Carlsson because Carlsson teaches forwarding a sequence number not a token ID number (App. Br. 8-10 and 12-14). Appellants assert a sequence number cannot be a token ID number since claims 7 and 17 recite a signature certificate/private and associated private key which differentiates the token ID number recited in claim 1 (App. Br. 7-9 and 11-14). Appellants further assert replacing the sequence ID in the Carlsson system with the HTP ID number of Burn would not have been obvious. Appellants therefore argue since the combined Burn and Carlsson does not teach each and every element of claim 1 and claim 11, one of ordinary skill in the art would not have been motivated to combine the system of Burn with the Tokenizing Officer of Carlsson (App. Br. 10 and 13). Appellants further argue a skilled artisan would not have reasonably elected trading the benefit of security for that of convenience (Rep. Br. 4-5).

The Examiner finds the Tokenizing Officer forwards a token ID number that may be either the sequence number of Carlsson or the HTP # number of Burn (Ans. 11 and 16). Further, the Examiner finds a skilled artisan would have been motivated to combine the Burn system with the Tokenizing Officer of Carlsson to add another layer of security to the Burn

system (Ans. 11 and 16). The Examiner notes that the test for obviousness is not that the claimed invention must be expressly suggested in any one or all of the references. (Ans. 11 and 17). Instead, citing *In re Keller,* 642 F.2d 413 (CCPA 1981), the Examiner states the test is what the teachings of the references would have suggested to those of ordinary skill in the art (Ans. 11-12 and 17).

Issue 1: Have Appellants shown the Examiner erred in finding one skilled in the art would have been motivated to combine the Burn security system with the Tokenizing Officer of Carlsson since Carlsson teaches use of a sequence number and the HTP # of Burn is not the same type of number and adding the Tokenizing Officer of Carlsson would trade the convenience of the Burn system for the security of the Carlsson system?

(2) Appellants contend the Examiner erred in rejecting claim 3 as being obvious over the combination of Burn and Carlsson because the cited reference Carlsson does not teach or suggest checking for redundant user tokens and revoking any such user tokens (App. Br. 10-11 and 14).

The Examiner finds Carlsson teaches the administrator manages and revokes cards and is responsible for preventing unauthorized users from gaining access to tokens not assigned to them and thus teaches checking for redundant user tokens and revoking any such user tokens (Ans. 12-13).

Issue 2: Has the Examiner erred in finding Carlsson teaches checking for redundant user tokens and revoking any such user tokens?

We AFFIRM.

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Burn

(1)   The prior art Burn describes a hardware token (HTP) self enrollment process and system.

(2)   Tokens are assigned unique token identifiers (HTP ID #), personal identification numbers (PINs) randomly generated for a user and administrator, and two randomly generated key pairs during an initialization process (p. 3, [0036]).

(3)   Once the user obtains an initialized HTP, that user engages in an enrollment process the result of which affiliates the user with a particular token (p. 4, [0041]). An enrollment request including the HTP ID #, New User ID, New User Pin and personal identification data such as employee number, social security number, etc., is sent to a certificate authority (p. 4, [0041] and Fig. 7, element 220).

Carlsson

(4)   The prior art Carlsson teaches a system for administering certificates in a distributed system including generating, distributing and revoking certficates (Abstract).

(5)   A sequence number of a certificate is compared with previous numbers (col. 6, ll. 23-25 and claim 15).

(6)　　A Certification Authority (CA) administrator is a person with authorization to issue user certificates (col. 5, ll. 56-58). A CA checks that a user is entitled to certification and verifies the user's identity (col. 8, ll. 19-21). An administrator completes a form requesting a certificate with user information and validity periods and forwards the certificate request along with a service life, a sequence number and the administrator's signature to a CA centre (col. 8, lines 28-37). The IC card or token is personalized by adding the certificate (which includes the sequence number), private key and other things (col. 8, ll. 58-60).

(7)　　A certificate is revoked when a certificate has become invalid as determined by the administrative rules of the organization (col. 9, ll. 14-20). Revocation may occur, for example, when a user has died, or when other conditions set by the organization occur (col. 9, ll. 15-17).

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious without an explicit application of the teaching, suggestion, motivation test.

In particular, the Supreme Court emphasized "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR* at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

Under this framework, once an Examiner demonstrates the elements are known in the prior art and one of ordinary skill could combine the elements as claimed by known methods and would recognize that the capabilities or functions of the combination are predictable, then the Examiner has made a prima facie case the claimed subject matter is likely to be obvious. The burden then shifts to the Appellants to show the Examiner erred in these findings or to provide other evidence to show the claimed subject matter would have been nonobvious.

GROUPING OF CLAIMS
Claims 1 and 3-20

Based on the arguments presented in Appellants' Brief, we decide the appeal of claims 1, 9-11, 19, and 20 on the basis of claim 1. Appellants argued the same issues in both claim 1 and claim 11, the two independent claims from which the other claims directly depend. Based on Appellants' Brief arguments, we decide the appeal of claims 3-8 and 13-18 on the basis of claim 3 alone. Again, Appellants argued the same issues in both claim 3 and claim 12. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ANALYSIS
Claims 1 and 11

Carlsson discloses a sequence number which is also compared to previous numbers (FF 5); therefore, it may be a unique number. The certificate, and thus the sequence number, is added to the user's IC card (or token) as is a private key (FF 6). Therefore, we find Carlsson teaches "each token having a unique ID number stored therein".

Burn does not teach an administrator reviewing credentials of the user and signing and forwarding an E-form request that includes the user ID number and token ID number to a Certificate Management System. Burn instead teaches forwarding the HTP ID # (token ID) and New User ID along with personal, identifying information (FF2).

Carlsson teaches a request is sent to a CA with the user ID (FF6). A Certification Authority (CA) administrator is a person with authorization to issue user certificates (FF6) and thus, is a Tokenizing Officer. The CA forwards a certificate request along with a service life, a sequence number and the administrator's signature to a CA centre (FF6).

Based on the above findings, it is our view that forwarding the unique sequence number by the CA administrator, instead of by the computer taught by Burn, would have been obvious to a skilled artisan. We further conclude the CA administrator forwarding the HTP # instead of the unique sequence number taught by Carlsson would have been obvious to a skilled artisan. Moreover, we note that Appellants arguments are directed to the Carlsson reference (App. Br. 7-11). The Court of Appeals for the Federal Circuit has determined that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co.,* 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Here, both Burn and Carlsson are directed toward security systems for remote users in a computer system and both utilize unique numbers for the tokens. Therefore, we find the elements are known in the prior art. It is our view that a skilled artisan would have recognized that adding a Tokenizing Officer to the system of Burn would have provided security and ease of use

at a remote location. Accordingly, based on the foregoing, we conclude that Appellants have not shown the Examiner erred in determining that combining the Tokenizing Officer of Carlsson with the system of Burn would have been obvious to one skilled in the art.

Claims 3 and 12

Carlsson teaches a certificate is revoked when it has become invalid (FF7). The "invalid" criteria are set by the organization (FF7). Therefore, we find checking for redundant tokens is taught by Carlsson.

Redundant tokens as well as other tokens may be revoked when criteria set by the organization are met (FF7). Therefore, we find Carlsson teaches revoking any redundant tokens.

Since Carlsson teaches checking for redundant tokens and revoking any such user tokens, we conclude that Appellants have not shown the Examiner erred in determining that a skilled artisan would have combined the system of Burn with the features of Carlsson to render obvious Appellants' claims 3 and 12.

Claims 4-10 and 13-20

Appellants did not separately argue claims 4-10, 13-20. Since claims 9 and 10 depend directly from claim 1 and claims 19 and 20 depend directly from claim 11 and claims 4-8 depend directly and indirectly from claim 3 and claims 13-18 depend directly and indirectly from claim 12, for the

reasons set forth above, these claims fall with claim 1. Therefore, based on our discussion of claim 1 *supra*, Appellants have not shown the Examiner erred in rejecting claims 4-10 and 13-20.

CONCLUSION OF LAW

Appellants have not shown the Examiner erred in finding one skilled in the art would have been motivated to combine the Burn security system with the Tokenizing Officer of Carlsson.

Appellants have not shown the Examiner erred in finding that Carlsson teaches checking for redundant user tokens and revoking any such user tokens.

Appellants have not established the Examiner erred in rejecting claims 1 and 3-20 as being unpatentable under 103(a) over Burn in view of Carlsson.

DECISION

The Examiner's rejection of claims 1 and 3-20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

pgc

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVEVLAND, OH 44114